

Employment, work conditions and health

Empleo, condiciones de trabajo y salud

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Work is an essential component of human life. It represents the relationship between human beings and nature, as well as how humans produce goods and shape their social interactions, providing the foundations for economic production reflected in social and political life. Work is also a concept central to an understanding of the way in which society distributes wealth and power and integrates or excludes certain groups, giving rise to a more or less fair distribution of goods and access to resources. This is the origin of the socioeconomic stratification that influences not only consumption patterns, but also lifestyles and behavior (1,2,3). Work's centrality becomes evident when we use occupation as a proxy for socioeconomic status or as a component in measuring social class. Nonetheless, working conditions around the world have historically deteriorated and become a determining factor in health, disability, and sickness (4). In a comparative study assessing worldwide occupational risk factors carried out for the WHO, Driscoll *et al.* (2004)(5) reported that 37% of back pain, 16% of hearing loss, 13% of chronic obstructive pulmonary disease and 2% of leukemia were related to the carcinogens, airborne particulates, injury hazards, ergonomic stressors and noise present in the workplace. Overall, occupational exposures resulted in approximately 800,000 deaths and the loss of over 22 million years of healthy life.

The factors influencing this deterioration in workers' health are complex, and understanding them requires a consideration of the macroeconomic, political, and social determinants conducive to biological, chemical, physical and ergonomic risks, as well as the presence of psychosocial stressors in the workplace. The economic burden of occupational diseases and injuries has been estimated at 4% of Gross National Product in developed countries, and up to 11% in poorer countries (6). However, much of this burden, particularly the emotional pain experienced by workers and their families resulting from disability and loss of life, cannot be measured. The way in which a society effectively regulates the relations between employers and employees, mobilizing resources to maintain healthy and safe workplaces and adequate occupational health and safety systems, is crucial for worker wellbeing.

ECONOMIC DETERMINANTS

Although this may occur in a number of ways, reductions in wages and an intensification of the work rhythm have been identified as dominant features in modern society, particularly in developing countries. Low salaries are a major cause of poverty, and the minimum wage is usually fixed at the lowest

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possible level required for worker survival (8). In countries with a surplus labor force (as evidenced by high unemployment rates), wages may be even lower than the established minimum, especially in the economy's informal sector, where state regulation is minimal (9). Additionally, the increased profits generated by an accelerated pace of production and achieved by rigidly disciplining workers may contribute to a rapid deterioration in their physical and mental health.

A number of studies have shown that major predictors of health-related absenteeism are associated with workplace demands, including excessive length of the workday, heavy workloads and constant pressure, particularly in cases where workers lack adequate control over their jobs (10,11). Furthermore, the prevailing models of economic development fail to take account of the impact that production processes have on the environment or on worker health (7). The overutilization of natural resources and the use of environmentally harmful technologies in production generate hazards that affect both worker health and the environment. In the majority of cases we can assume that the full extent of such hazards is unknown and therefore that discernible forms of prevention or control remain elusive.

The growing internationalization of trade under the principles of the market economy has given rise to extensive changes in the structure of production across the globe, affecting the nature of work, relations between workers, and employment (12,13). The restructuring of production has led to increased levels of unemployment, or, more specifically, to the so-called phenomenon of structural unemployment, which in turn results from a more intensive utilization of capital, information technology, and trends toward "flexible" production methods. In addition to poverty, it is widely recognized that long-term unemployment affects self-esteem and mental health, the perception of one's own health, and mortality (14). Among young adults, a group in which unemployment is particularly high, uncertainties related to the future in terms of social accomplishment and labor market participation were cited as significant explanations for the outbursts of violence that took place in France in 2005. Following the wave of unemployment brought on by neoliberalism, there has been a surge in numerous forms of underemployment, including part-time and temporary work, outsourcing and subcontracting, informal job contracts, and autonomous work or self-employment, all considered flexible or precarious forms of employment. Given that such forms of employment are largely unregulated and, in some cases, illegal, they are invisible to state policies, so that such workers lack adequate social protections. In developing countries, such forms of employment may constitute up to 70% of the workforce and this figure may be even higher in sectors such as agriculture and construction (9), both known for their high levels of mortality due to occupational hazards. Precarious involvement in the labor market is a major determinant of poverty, because of low wages (15) and the lack of benefits, such as medical care or health insurance (16).

NON-STANDARD WORK ARRANGEMENTS AND HEALTH OUTCOMES

Although few studies examine the effects of non-standard forms of work on health and workplace safety, a review of the available empirical research shows strong evidence that such forms are associated with a higher incidence of work-related accidents and fatal or severe nonfatal injuries than for workers in "normal" jobs. In situations of precarious employment, it is less likely that workers will report injuries or diseases, be aware of occupational hazards (17,18,19), or receive adequate training and supervision (15). Small, nonregistered enterprises, common in the informal sector, often operate through rudimentary procedures, which may contribute to a higher occurrence of work-related injuries and diseases, as well as damage to the environment (20). In contrast, community-based studies conducted in Brazil did not find differences in the incidence of non-fatal injuries when comparing workers from the informal and formal sectors (21). It is possible that in developing countries scarce labor regulation, insufficient access to the occupational healthcare system, and a lack of efficient prevention programs in the regulated labor market reduce the expected differences in morbidity. In other words, in developing countries, workers in the formal sector may also hold precarious jobs, a possibility that suggests that in developing countries

there is a need to improve the working conditions of both formal and informal workers. Ethnographic studies have shown that, although workers in the informal sector are aware of workplace hazards, their overriding concern is a lack of social protection (19).

Another aspect of employment quality relevant to worker health and safety concerns a range of discriminatory practices, either within the workplace or in accessing the labor market. Rates of unemployment and precarious involvement in the labor market are higher among ethnic minorities, migrants, women, and youth (16,17). Black men experience higher mortality rates due to occupational accidents (22), while a higher incidence of nonfatal workplace injuries has been detected among African-American nurses compared to their white colleagues (23). Perceived racial discrimination in the workplace has been linked to nonfatal occupational accidents in urban Brazil (16), a country often portrayed as a racial democracy. Migrant workers are more likely to hold dangerous jobs and show an increased prevalence of alcohol abuse (8). Although mortality rates due to occupational accidents are lower among women than men, women are more likely to develop work-related musculoskeletal (24) and psychological disorders (25), both recognized as causing long-term disability. Additionally, women are more likely to face the so-called double burden, taking care of household chores and childrearing while also holding a paid job, a factor that has been associated with minor psychological disorders (21).

POLITICAL DETERMINANTS

This intersection between work process, poverty, and standards of worker health and safety is the result of a variety of complex phenomena largely shaped by the political development of a given society. This political landscape can be defined as the realm in which democratic principles guide political institutions and social organization, where citizens are aware of and committed to such principles, and where social cohesion and political participation are shaped, particularly through worker organizations. Based on a historical analysis of occupational health in the US, Cullen (1999)(4) has observed that social movements have been a major determinant for policy advancements and the effectiveness of the state institutions that regulate labor relations, work processes, and health and safety issues, based on an assumption that worker health is a public health matter. Other related factors included advancements in scientific research, the diffusion of occupational health information to workers and the general public, and the dissemination of specialized services, particularly prevention-oriented occupational health monitoring. In developing countries, historically fragile political institutions and high levels of illiteracy or poor education mean that democracy is often weak, making it difficult to identify similar advances.

Comparisons of occupational health indicators between developing and developed countries are limited, due to differences in reporting systems, but it is clear that poorer regions are at a disadvantage with regard to occupational health. For instance, the mortality rate due to work-related injuries in Brazil was estimated at 11.4 per 100,000 workers in 2003 (26), 16 times higher than the estimated rate of 0.7 per 100,000 workers in the United Kingdom in 2004/2005 (27). Furthermore, comparisons between countries show that developing countries have higher levels of occupational morbidity and mortality than developed countries (29). Poor workers are often less educated and more likely to hold less qualified jobs (28), which are frequently associated with excessive occupational hazards and increased rates of work-related injuries and diseases (30). Low levels of education can be attributed to a lack of opportunities in early life, resulting from limited access to quality schooling. In developing countries, child and adolescent labor is a determining factor that influences dropout rates and poor academic performance, which lead, in turn, to limited opportunities later in life (31). This would seem to indicate a perverse cyclical pattern that traps poor workers, through which their children are excluded from the school system and therefore unable to escape poverty in adult life. Political considerations to improve the quality of employment must necessarily take into account the issue of educational access and include appropriate strategies for dealing with child and adolescent labor, not only because of its known effects

on health and development, but also in order to effectively improve access to education. In addition to generating poverty and low wages, low-quality employment usually does not provide opportunities for social mobility or career development, and is largely responsible for impeding social and economic development in both developing and developed countries (10,17,32).

HEALTH SYSTEMS AND OCCUPATIONAL HEALTH PROTECTION

Several countries have either directly or indirectly expressed that health is a fundamental right of citizenship by instituting social security – which includes labor and social protection, in addition to the provision of healthcare – as an obligation of the State and the right of a citizen (33). This is in direct contrast to the trend, following the implementation of neoliberal policies around the world, of a reduction in state participation in social policy, particularly in education and healthcare. As a result, there are pressures in developed and developing countries either to privatize healthcare or to maintain a dual system composed of a market-driven subsystem and a public subsystem for the poor and uninsured (34). This dichotomy can also be observed in the occupational healthcare system: on the one hand, insured workers in the formal sector are eligible for workplace health and hazard surveillance, prevention programs, and occupational health insurance; and on the other hand, uninsured informal workers, who form part of the growing unregulated labor market, lack labor and health protection. Brazil is an interesting case, where universal public healthcare is responsible for dramatic changes in health indicators (such as the reduction in AIDS incidence and mortality), which, given the decreasing number of insured workers due to growth in informal employment, was unthinkable. Thus, policies concerning employment quality must prioritize the organization and funding of the occupational health system, as well as universal public coverage for labor and social protection.

To conclude, work is a major component of social and economic life and plays a substantial role in determining health outcomes. It is not possible to conceive of effective policies focusing on overcoming social disparities in health without considering inequalities in terms of access to decent jobs and opportunities to both improve personal capabilities and enjoy a stimulating environment. Such access would enable us to reclaim the original meaning of work as an important part of human social life, which endows men and women with their humanity.

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